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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/677,372	**Applicant(s)** KURUMIDA ET AL.	
	Examiner PETER L. CHENG	**Art Unit** 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2010*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7,12,14,17 and 29-34* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *7,12,14,17 and 29-34* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
  Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. For the purpose of claim interpretation, "**the download**" (in **claim 29, line 4**) is assumed to refer to either the *font or form* (in **claim 7, lines 7 - 8**), or the *color profile* (in **claim 7, lines 13 - 14**);

Claim Objections

2. Claim 17 is objected to because of the following informalities:

- **Lines 6** and **12:** "**the decision step**" lacks antecedent basis;

3. Claim 29 is objected to because of the following informalities:

- **Line 3:** per the originally-filed specification, **page 12, lines 8 – 12** and **25 – 26**, it is assumed that Applicants intended to cite **to be downloaded into the device group** instead of **to be downloaded into the registered device group**; that is, *a device is registered in the device group*; the specification does not appear to teach *registering the device group*;

- **Lines 4 - 5:** regarding "**the [selected] resource is processed to be downloaded *and to be deleted* in the processing step**", the instant specification does not appear to teach *deleting the* [selected font, form, or color profile] *resource*; that is, the *selected resource to be downloaded* is only downloaded;

4. Claim 30 is objected to because of the following informalities:

- **Line 5:** it is not clear what "***grouping* the device group**" means; per **page 15, lines 7 – 10**, it is assumed that **grouping the device group** should be replaced with **creating the device group**;

5. Claim 31 is objected to because of the following informalities:

- **Lines 3 - 4:** per the originally-filed specification, **page 12, lines 8 – 12** and **25 – 26**, it is assumed that Applicants intended to cite **to be downloaded into the device group** instead of **to be downloaded into the registered device group**; that is, *a device is registered in the device group*; the specification does not appear to teach *registering the device group*;

- **Lines 5 - 6:** regarding "**the [selected] resource is processed to be downloaded *and to be deleted* in the processing unit**", the instant specification does not appear to teach *deleting the* [selected font, form, or color profile] *resource*; that is, the *selected resource to be downloaded* is only downloaded;

6. Claim 32 is objected to because of the following informalities:

- **Line 5:** it is not clear what "***grouping* the device group**" means; per **page 15, lines 7 – 10**, it is assumed that **grouping the device group** should be replaced with **creating the device group**;

7. Claim 33 is objected to because of the following informalities:

- **Line 3:** per the originally-filed specification, **page 12, lines 8 – 12** and **25 – 26**, it is assumed that Applicants intended to cite **to be downloaded into the device group** instead of **to be downloaded into the registered device group**; that is, *a device is registered in the device group*; the specification does not appear to teach *registering the device group*;

- **Lines 4 - 5:** regarding "**the [selected] resource is processed to be downloaded *and to be deleted* in the processing step**", the instant specification does not appear to teach *deleting the* [selected font, form, or color profile] *resource*; that is, the *selected resource to be downloaded* is only downloaded;

8. Claim 34 is objected to because of the following informalities:

- **Line 5:** it is not clear what "***grouping* the device group**" means; per **page 15, lines 7 – 10**, it is assumed that **grouping the device group** should be replaced with **creating the device group**;

Appropriate correction is required.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. **Claim 12** is rejected under 35 U.S.C. 101 because the claimed invention, *a resource processing apparatus for downloading resources to a device having a printing function*, can be implemented as a *program codes*; *please see **page 23, line 26** through **page 24, line 2** which teaches "the program codes read from the recording medium implement the novel functions of the embodiment". Program codes,* i.e., software programs, are directed to non-statutory subject matter (i.e., a software program *not embodied in "non-transitory computer-readable media"*).

MPEP 2106.01 (Computer-Related Nonstatutory Subject Matter) states:

> Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.
>
> Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer

> program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.

Dependent **claims 31** and **32** do not further limit the claimed invention to statutory subject matter and are rejected for the same reasons given for claim 12 above.

11. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
>
> *In addition,* the broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. See MPEP 2111.01.
>
> In an effort to assist the patent community in overcoming a rejection under 35 U.S.C. § 101 for claims directed to computer readable media that cover signals *per se*, the USPTO suggests the following approach.
>
> A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim.
>
> Such amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal *per se* is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure.

Therefore, dependent **claim 14** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter (i.e., "*a computer-readable storage medium*"). *Transitory propagating signals* are non-statutory.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 7, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **SASAKI [US Patent 6,633,400 B1]** in view of **ASCHENBRENNER [US Patent 7,218,405 B1]**.

As for claim 7, SASAKI teaches a resource processing method for downloading resources to a device having a printing function

> **[Fig. 5** "printer server apparatus" **210** corresponds to the "device".
>
> "In the second embodiment, ..., a print server apparatus 210 functions not only as a spooler but as data conversion means for converting print data in, for example, page description language into bit-map data"; **col. 10, lines 61 – 64.**
>
> *This "data conversion means" corresponds to the "printing function".*

In addition, SASAKI teaches that *the present invention should not be limited to the case "where the print data included in the print file output from the client PC 30 is converted into bit-map data by the printer server 210"*; **col. 16, lines 51 – 56.** "*The print data included in the print file output from the client PC 30 may be output to the printer apparatus 250 through the printer server apparatus 210 and converted into the bit-map data by the printer apparatus 250*"; **col. 16, lines 56 – 29.]**,

comprising:

a decision step of determining processing of a resource, which is downloadable to the device, in dependence upon the resource to be downloaded to the device

[SASAKI teaches the ability to download both fonts and color profiles to the "printer server apparatus" **210** as required for a particular print job. "The user designates a color profile and / or a font file to set color edit data and / or font data at the time of generating print data"; **col. 13, lines 60 – 62.];**

~~and a changeover step of changing over to processing of the resource based upon a result of a decision made in said decision step,~~

~~wherein, if the resource is a font or a form, the processing of this resource is changed over in the changeover step to processing for adding a font or a form which is designated by a user and is not stored in the device and~~

~~deleting a font or a form which is stored in the device and is not designated by the user;~~

and a processing step of processing the resource;

if it is determined in the decision step that the resource is a font or a form, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the font or form,

fonts or forms, which are not stored in the device among the fonts or forms displayed on the user interface screen, are downloaded into the device, and fonts or forms, which are stored in the device and are not displayed on the user interface screen, are deleted from the device;

~~otherwise, if the resource is a color profile, the processing of this resource is changed over in the changeover step to processing for adding a color profile which is designated by the user and is not stored in the device without deleting a color profile which is stored in the device and is not designated by the user,~~

~~and wherein the designation by the user is performed on a user interface~~

otherwise, if it is determined in the decision step that the resource is a color profile, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the color profile,

a color profile, which is not stored in the device among color profiles displayed on the user interface screen, is downloaded into the device, and color profiles, which are stored in the device and are not displayed on the user interface screen, are not deleted

[SASAKI defines *property files* as including "color profiles, font files and function files"; **col. 12, lines 29 – 31.** *See also **col. 12, lines 32 – 47** for a discussion of "color profiles", and **col. 12, lines 49 – 51** for a discussion of "font files".*

With reference to **Fig. 5**, the "receiving directory 221 is a storing area to receive and temporarily store property files output from the client PCs 30. The property file directory 222 is a storing area to store a plurality of property files"; **col. 12, lines 6 – 9.**

With reference to **Fig. 6**, "if a new color profile 5 is added to the property file directory 222 in the printer server apparatus 210, the client PC outputs the color profile 5 to the client server apparatus 210 through the communication network 44"; **col. 14, lines 60 – 64.**

Figs. 7 and **8** detail the processing steps that are executed by the "printer server apparatus" **210** when a color profile is added; **col. 15, lines 21 – 23.** SASAKI further teaches that fonts are downloaded in a similar manner; **col. 16, lines 10 – 11.**

In downloading and *designating* a *color profile*, i.e., a type of *property file*, "all the *user needs to [do] is output a color profile from the client PC 30*"; **col. 16, lines 33 – 35.].**

With reference to **Fig. 5**, a *user* interacts with the "client PC" **30** by means of both the "input portion" **35** and "display portion" **36** (*which "consists of a CRT display, a liquid display or the like"; **col. 7, lines 60 - 61***).

SASAKI teaches *designating a color profile and / or font file* at the time of generating print data by *operating "the input portion 35 while looking at the display portion 36*"; **col. 14, lines 4 – 6.**

It would have also been obvious to one of ordinary skill in the art at the time of the instant invention to similarly *designate* property files, *such as color profiles and font files, to be downloaded* to the "printer server apparatus" **210** by using both the "input portion" **35** and the "display portion" **36.**

The “input portion” **35** and the “display portion” **36** constitute the interface by which the user interacts with the “client PC” **30**. Therefore, the “input portion” **35** and the “display portion” **36** correspond to the *user interface.***]**.

However, SASAKI *does not specifically teach*

~~***a changeover step of changing over to processing of the resource based upon a result of a decision made in said decision step,***~~

~~***wherein, if the resource is a font or a form, the processing of this resource is changed over in the changeover step to processing for adding a font or a form which is designated by a user and is not stored in the device and deleting a font or a form which is stored in the device and is not designated by the user***~~

and a processing step of processing the resource;

if it is determined in the decision step that the resource is a font or a form, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the font or form,

fonts or forms, which are not stored in the device among the fonts or forms displayed on the user interface screen, are downloaded into the device,

and fonts or forms, which are stored in the device and are not displayed on the user interface screen, are deleted from the device;

[This limitation is interpreted as meaning that either a *designated font* or a *designated form*, which is not stored in the device, replaces one or more fonts or forms which are stored in the device and are not designated by the user; *for example, a device having just enough memory to hold one font would require that the downloaded font replace the previously downloaded font.***];***

~~***otherwise, if the resource is a color profile, the processing of this resource is changed over in the changeover step to processing for adding a color profile which is designated by the user and is not stored in the device without deleting a color profile which is stored in the device and is not designated by the user***~~

otherwise, if it is determined in the decision step that the resource is a color profile, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the color profile,

a color profile, which is not stored in the device among color profiles displayed on the user interface screen, is downloaded into the device, and color profiles, which are stored in the device and are not displayed on the user interface screen, are not deleted

[This limitation is interpreted as meaning that a *designated color profile*, which is not stored in the device, *is added to the device without replacing one or more existing color profiles*.**].**

ASCHENBRENNER's invention "provides a method for the primary [printer] datastream to include the source calibration parameters, i.e., the rendering control, without modifying the heterogeneous object" (i.e., PostScript level 1 color images); **col. 9, lines 15 – 22.** "A datastream is a continuous ordered stream of data elements and objects that conform to a given formal definition"; **col. 3, lines 5 – 7.** "The Mixed Object Document Content Architecture … defines a datastream"; **col. 3, lines 9 – 12.** "In its most complex form, a Mixed Object Document Content Architecture … document contains data and resource objects along with data structures which define the document's layout and composition features"; **col. 3, lines 40 – 43.** "Resource objects are named objects or named collection of objects than can be referenced from within the document. In general, referenced resources can reside in an inline resource group that precedes the document in the [Mixed Object Document Content Architecture] … datastream or in an external resource library and can be referenced multiple times"; **col. 4, lines 60 – 65.** Alternatively, resource objects "may be resident in the printer"; **col. 4, lines 14 – 16.** Resources include "fonts, overlays [i.e., **forms**], and other resource objects, which are required at presentation time to present the data properly"; **col. 2, lines 60 – 63.** In addition, printer "color profiles" may be identified in a datastream as a resource; **col. 12, lines 23 – 25.**

ASCHENBRENNER teaches that "when an AFP (MO:DCA)™ datastreams 112, 118 are processed by an AFP print server 120, the resource structure is encountered first and causes the server to download any of the identified resources that are not already present in the printer"; **col. 9, lines 60 – 64.**

That is, *resources, such as fonts, forms and color profiles, which are designated to be downloaded but which are not stored in the device, are downloaded into the device.*

ASCHENBRENNER further teaches that "two conceptual methods are provided in a printer for holding downloaded resources: caching and capturing"; **col. 11, lines 7 – 9.** Caching "means that the resource is available in the printer for the duration of the job, but probably no longer than that. In addition, cached resources are deleted when the server session ends, and when the printer is powered down or re-started. Capturing overcomes the temporary nature of caching. Once an object is captured, it becomes a resident resource in the printer and lasts across server sessions and printer power-off cycles. Resources may be captured by the printer if the resource is made capturable and if the printer has sufficient storage to save the resources"; **col. 11, lines 11 – 21.**

With respect to **Fig. 3,** ASCHENBRENNER further illustrates an example where a color profile is referenced "using a universally unique OID [object identifier] 322. Preferably, this OID format will only be used for complex, re-usable resources that are potentially resident in the device. In fact, the presence of this OID format on the Map Data Resource (MDR) 310 is the trigger that tells the AFP print server that the corresponding object, i.e., the color profile 322, may already be resident in the device, and if not, could be captured by the device"; **col. 12, lines 51 – 59.**

To reiterate, ASCHENBRENNER identifies a deficiency of *caching resources* which is its "*temporary nature*". "*This means that the resource is available in the printer for the duration of the job, but probably no longer than that. In addition, cached resources are deleted when the server ends, and when the printer is powered down or re-started*"; **col. 11, lines 11 – 15.**

ASCHENBRENNER uses the term *resident resource* to refer to *captured resources* and cites, "*capturing overcomes the temporary nature of caching. Once an object is captured, it becomes a resident resource in the printer and lasts across server sessions and printer power-off cycles*"; **col. 11, lines 16 – 19.**

ASCHENBRENNER further teaches that "to *optimize the management of complex resources AFP architecture extensions* are used. *In this manner, complex objects can be treated as resources that are downloaded once and can be re-used multiple times by multiple documents and print servers*"; **col. 10, lines 37 – 41.**

That is, by *capturing* a *complex resource* and making it *resident* in a printer, the *complex resource* can be *re-used multiple times by multiple documents and print servers.* In this way, the *management of the complex resource is optimized.*

Therefore, ASCHENBRENNER teaches a *preference for capturing complex resources.*

Furthermore, ASCHENBRENNER associates *color profiles* with *complex resources*, and as noted, cites, "*Preferably, this OID format will only be used for complex, re-usable resources that are potentially resident* [i.e., "captured"] *in the device*. In fact, *the presence of this OID format* on the Map Data Resource (MDR) 310 is the trigger that tells the AFP print server that *the corresponding object, i.e., the color profile 322, may already be resident in the device, and if not, could be captured by the device*"; **col. 12, lines 52 – 59.**

Therefore, ASCHENBRENNER teaches a *preference for capturing complex resources* such as *color profiles.*

In addition, since ASCHENBRENNER teaches only "*two conceptual methods … for holding downloaded resources*" (i.e., caching and capturing) [**col. 11, lines 7 - 9**], *and since a printer's storage memory is of a finite size*, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to infer from ASCHENBRENNER's teachings that *less complex resources are preferably cached*.

(Otherwise, with a *limitless storage memory*, a printer *could always capture* downloaded resources, and thus, caching would not be necessary. That is, the need for *caching downloaded resources* is determined by the reality that a printer's storage memory is *not limitless.*)

Although ASCHENBRENNER does not specifically identify *fonts and forms as being less complex resources*, their use is identified as resources in both AFP™ system and IPDS™ architecture data streams.

For example, in the AFP™ system, "documents may also contain and / or reference *fonts, overlays, and other resource objects*, which are required at presentation time to present the data properly"; **col. 2, lines 60 – 62.**

At the printer level, the "IPDS™ architecture transfers all data and commands through self-identifying structured fields that describe the presentation of the page and provide for dynamic management of resources, *such as overlays, page segments and fonts* as well as the comprehensive handling of exception conditions"; **col. 5, lines 44 – 50.**

In summary, ASCHENBRENNER teaches that downloaded resources can be either *cached* or *captured*. The motivation for *capturing a resource* is that it can be *re-used multiple times by multiple documents and print servers*.

ASCHENBRENNER associates *color profiles* with *complex resources* which are *preferably captured*.

It was well-known in the art that *color profiles* determine the amounts of a printer's colorants (e.g., ink or toner) in reproducing a specified color on a specified medium (e.g., plain paper). One of ordinary skill in the art would be motivated to *capture* a *color profile* because the *color profile* determines the "mixing" of a particular *printer's colorants* for a particular media type. A *color profile* is built for a *particular printer.*

ASCHENBRENER identifies *other resources* such as *fonts* and *overlays* [i.e., *forms*] which may be present in the printer datastream. These resources are associated with the presentation of a particular *document* irrespective of a selection of *a particular printer*.

Given these two alternatives, *caching* and *capturing*, and the teaching that *complex resources* such as *color profiles* are *preferably captured*, it is believed that it would have been obvious to one of ordinary skill in the art to *alternatively cache* other resources such as *fonts* and *forms*.

Applicants' claims indicate a *preference* for caching *fonts and forms*, and capturing *color profiles*. However, it is understood from ASCHENBRENNER's teachings that any resource may be preferably captured depending upon its frequency of use.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of ASCHENBRENNER with those of SASAKI so that complex, re-usable resources like a color profile (which are associated with a printing mechanism and its colorant set) would be *added without deleting earlier-stored profiles*, whereas, *other resources* (e.g., fonts and forms which are associated with a printing document) can be *added on and deleted after use*.

As for claim 12, SASAKI teaches a resource processing apparatus for downloading resources to a device having a printing function, comprising:

> **a decision ~~means~~ unit for determining processing of a resource, which is downloadable to the device, in dependence upon the resource to be downloaded to the device;**
>
> **~~and changeover means for changing over to processing of the resource based upon a result of a decision made by said decision means,~~**
>
> ***~~wherein, if the resource is a font or a form, the processing of this resource is changed over by the changeover means to processing for adding a font or a form which is designated by a user and is not stored in the device and deleting a font or a form which is stored in the device and is not designated by the user;~~***

and a processing unit for processing the resource;

if it is determined in the decision unit that the resource is a font or a form, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the font or form,

fonts or forms, which are not stored in the device among the fonts or forms displayed on the user interface screen, are downloaded into the device, and fonts or forms, which are stored in the device and are not displayed on the user interface screen, are deleted from the device;

~~*otherwise, if the resource is a color profile, the processing of this resource is changed over by the changeover means to processing for adding on a color profile which is designated by the user and is not stored in the device without deleting a color profile which is stored in the device and is not designated by the user,*~~

~~*and wherein the designation by the user is performed on a user interface.*~~

otherwise, if it is determined in the decision unit that the resource is a color profile, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the color profile,

a color profile, which is not stored in the device among color profiles displayed on the user interface screen, is downloaded into the device, and color profiles, which are stored in the device and are not displayed on the user interface screen, are not deleted.

Regarding the rejection of claim 12, the rationale provided in the rejection of claim 7 is incorporated herein.

As for claim 17, SASAKI teaches a resource processing method for downloading resources to a device having a printing function, comprising:

a reception step of making a resource selection of a font, a form or a color profile as a type of resource, which is downloadable to the device;

~~***and a process step of performing processing for adding a font or a form which is designated by a user and not stored in the device and deleting a font or a form which is stored in the device and is not designated by the user for the device in accordance with a user instruction; otherwise, if the selected resource is the font or the form,***~~

and a processing step of processing the resource;

if it is determined in the decision step that the resource is a font or a form, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the font or form,

fonts or forms, which are not stored in the device among the fonts or forms displayed on the user interface screen, are downloaded into the device, and fonts or forms, which are stored in the device and are not displayed on the user interface screen, are deleted from the device;

~~or performing processing for adding a color profile which is designated by the user and is not stored in the device without deleting a color profile which is stored in the device and is not designated by the user,~~

~~and wherein the designation by the user is performed on a user interface.~~

otherwise, if it is determined in the decision step that the resource is a color profile, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the color profile,

a color profile, which is not stored in the device among color profiles displayed on the user interface screen, is downloaded into the device, and

> ***color profiles, which are stored in the device and are not displayed on the user interface screen, are not deleted.***

Regarding the rejection of claim 17, the rationale provided in the rejection of claim 7 is incorporated herein.

14. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **SASAKI [US Patent 6,633,400 B1]** in view of **ASCHENBRENNER [US Patent 7,218,405 B1]** and **NISHIDA [US Patent Application 2002/0105661 A1]**.

Regarding claim 14, SASAKI *does not specifically teach*

> **a computer-readable storage medium storing a program including computer-executable instructions for causing a computer to implement the resource processing method set forth in claim 7.**

NISHIDA teaches a server in a printing system that “acquires color space information for each of a plurality of printing units”; **abstract.** NISHIDA teaches that a CPU implements the function of the server by executing a “program recorded on a media disk”; **page 2, paragraph 36, lines 7 – 8.** In addition, the “server 1 is a commonly-used personal computer”; **page 2, paragraph 36, lines 1 – 2.**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of NISHIDA with those of SASAKI and ASCHENBRENNER to provide a computer-readable recording medium containing a computer-executable program that implements the method for displaying and managing a printing device's resources since programs for "commonly-used personal computers" are typically distributed in this manner.

15. Claims 29, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over **SASAKI [US Patent 6,633,400 B1]** in view of **ASCHENBRENNER [US Patent 7,218,405 B1]**, and **Internet Archive Wayback Machine's July 15, 2002 archive of www.digitalissues.co.uk/misc/cnrdqr.html**, *hereafter, referred to as* ***DIGITAL ISSUES*****.**

Regarding claim 29, SASAKI *does not specifically teach* the method according to claim 7, further comprising:

> **a step of registering a device in a device group;**
>
> **and a step of selecting a resource to be downloaded into the registered device group, wherein after the selecting step, when the download is designated, the resource is processed to be downloaded and to be deleted in the processing step.**

The DIGITAL ISSUES prior art reference teaches how to *download and manage fonts / macros on Canon networked printers*; **line 1 – 3.**

DIGITAL ISSUES teaches a *first step of creating "a group to work with"* and *choosing "which type of resource this group is going to use"*; **lines 10 – 11**.

DIGITAL ISSUES teaches a *second step of adding a printer to the group*; **lines 12 – 13.** This step corresponds to *the step of registering a device in a device group.*

DIGITAL ISSUES teaches a *third step of adding resources for the device group*; **lines 14- 15.** This step corresponds to *the step of selecting a resource to be downloaded.*

DIGITAL ISSUES teaches a *fourth step of downloading the selected resource*; **lines 18 – 20.**

That is, DIGITAL ISSUES teaches that it was well-known in the art at the time of the instant invention to *register devices in a group* and *download a resource to each device in the device group.* In this manner, a download of a *common resource* to a *plurality of devices* could be performed efficiently.

One of ordinary skill in the art at the time of the instant invention would have found motivation to combine the teachings of DIGITAL ISSUES, i.e., *of registering devices in a* *device group* and *selecting a resource to be downloaded to each device in the device group*, with those of SASAKI so as to efficiently perform a download of a *common resource* to a *plurality of printing devices*.

Regarding claim 31, SASAKI *does not specifically teach* the apparatus according to claim 12, further comprising:

> **a registering unit constructed to register a device in a device group;**
>
> **and a selecting unit constructed to select a resource to be downloaded into the registered device group, wherein after selection, when the download is designated, the resource is processed to be downloaded and to be deleted in the processing unit.**

Regarding the rejection of claim 31, the rationale provided in the rejection of claim 29 is incorporated herein.

Regarding claim 33, SASAKI *does not specifically teach* the method according to claim 17, further comprising:

> **a step of registering a device in a device group;**
>
> **and a step of selecting a resource to be downloaded into the registered device group, wherein after the selecting step, when the download is**

designated, the resource is processed to be downloaded and to be deleted in the processing step.

Regarding the rejection of claim 33, the rationale provided in the rejection of claim 29 is incorporated herein.

16. Claims 30, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **SASAKI [US Patent 6,633,400 B1]** in view of **ASCHENBRENNER [US Patent 7,218,405 B1]**, **Internet Archive Wayback Machine's July 15, 2002 archive of www.digitalissues.co.uk/misc/cnrdqr.html**, *hereafter, referred to as **DIGITAL ISSUES**,* and **NAITO [US Patent Application Publication 2001/0029530 A1].**

Regarding claim 30, SASAKI *does not specifically teach* the method according to claim 29, further comprising:

a step of creating a device information file by gathering device information from the devices;

and a step of displaying a type of resource that can be downloaded into the device group according to the device information file upon grouping the device group.

In addition, the DIGITAL ISSUES prior art reference *does not specifically teach* these limitations in regards to the *NetSpot Resource Downloader*.

As noted for claim7, SASAKI defines *property files* as including “color profiles, font files and function files”; **col. 12, lines 29 – 31.** *See also* ***col. 12, lines 32 – 47*** *for a discussion of “color profiles”, and* **col. 12, lines 49 – 51** *for a discussion of “font files”.*

However, SASAKI *does not specifically teach* whether a *property file* can be downloaded to a particular printer.

For example, one of ordinary skill in the art would expect that a printer capable of printing *full-color* would use *different color profiles* that enable the expression of a *wider range of colors* than for a printer capable of only printing in black.

In addition, NAITO teaches a *resource downloader* that checks whether a printer is *capable of receiving a downloaded resource*. Specifically, with reference to **Fig. 8** step **S812**, “if the printer type allows download [of the resource] *and* a storage device capable of [receiving the] download exists in the printer, it is determined that the printer is capable of download”; **page 6, paragraph 156, lines 3 – 9.**

Such information as to whether a particular printer *allows download of a resource* and *has a storage device capable of receiving the download* would be *gathered from the printing device*.

With reference to **Fig. 9**, NAITO illustrates the "configuration of the peripheral device information acquisition module 4031 included in the device communication program 403"; **page 7, paragraph 163, lines 1 – 3**; see also **Figs. 3** and **4.** With reference to **Fig. 10A**, NAITO further teaches *acquiring information from all peripheral devices*; **page 7, paragraph 169, lines 1 – 2.** This information, acquired by "server" **2** (see **Fig. 2**), is made available to the "manager PC" **3** which has the downloader; **page 4, paragraph 118, lines 4 – 7** and **page 4, paragraph 119, lines 1 – 4.**

Once such information as to whether a particular printer *allows download of a resource* and *has a storage device capable of receiving the download* had been gathered, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to store such information in a file for later use in downloading resources (e.g., in **Fig. 8** step **S812**). One of ordinary skill in the art would have found motivation to store such information in a file so that such information would be readily available without having to re-acquire the information from the (printing) peripheral device (through "server" **2**).

Since both SASAKI and NAITO teach downloading printer resources, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to combine their teachings and provide *a step of creating a device information file by gathering device information from the devices.*

From this *device information file*, one could determine whether a *property file* can be downloaded to a particular printer.

With respect to the limitation of *selecting a resource to be downloaded into the device group* (of **claim 29**), it would have been further obvious to reference the *device information file* so that only *downloadable property files* can be *selected.*

Regarding claim 32, SASAKI *does not specifically teach* the apparatus according to claim 31, further comprising:

> **a creation unit constructed to create a device information file by gathering device information from the devices;**
>
> **and a display unit constructed to display a type of resource that can be downloaded into the device group according to the device information file upon grouping the device group.**

Regarding the rejection of claim 32, the rationale provided in the rejection of claim 30 is incorporated herein.

Regarding claim 34, SASAKI *does not specifically teach* the method according to claim 33, further comprising:

> **a step of creating a device information file by gathering device information from the devices;**
>
> **and a step of displaying a type of resource that can be downloaded into the device group according to the device information file upon grouping the device group.**

Regarding the rejection of claim 34, the rationale provided in the rejection of claim 30 is incorporated herein.

Response to Arguments

17. Applicant's arguments filed **7/6/2010** have been fully considered but they are not fully persuasive.

With respect to Applicants' argument regarding **claims 7**, **12** and **17** on **page 11, 1st through 3rd paragraphs** that the applied art is

> *"not seen to disclose or suggest at least the feature of, if it is determined in the decision step that the resource is a font or a form, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the font or form,*
>
> *fonts or forms, which are not stored in the device among the fonts or forms displayed on the user interface screen, are downloaded into the device, and fonts or forms, which are stored in the device and are not displayed on the user interface screen, are deleted from the device;*
>
> *otherwise, if it is determined in the decision step that the resource is a color profile, processing the resource such that, when a download is designated by a user on a user interface screen for downloading the color profile,*
>
> *a color profile, which is not stored in the device among color profiles displayed on the user interface screen, is downloaded into the device, and color profiles, which are stored in the device and are not displayed on the user interface screen, are not deleted".*

> *"In contrast to the present claims, SASAKI is seen to disclose a printing system for automatically changing a print description file",*
>
> and in regards to ASCHENBRENNER's teachings, *"a user has no control over whether a resource is cached, where the cached resource is subject to be deleted, or whether a resource is captured, where the captured resource is retained as long as resources permit"*

has been considered.

In reply:

The Examiner concurs with Applicants that SASAKI teaches a printing system for automatically changing a print description file. However, the change in the print description file occurs in response to downloading one or more property files to a printing device (e.g., a server or printer).

With reference to **Fig. 3**, ASCHENBRENNER teaches that the "Fully Qualified Name (FQN) triplet uses the FQN type X'DE' 320 to identify (map) the color profile 322 (secondary resource) required to render the EPS data object 352"; **col. 12, lines 39 – 42.** "The FQN 'DE' triplet 320 references the color profile using a *universally unique OID 322. Preferably, the OID format will only be used for complex, re-usable resources that are potentially resident in the device. In* *fact the presence of this OID format on the Map Data Resource (MDR) 310 is the trigger that tells the AFP print server that the corresponding object, i.e., the color profile 322, may already be resident in the device, and if not, could be captured by the device"*; **col. 12, lines 51 – 59.**

That is, ASCHENBRENNER teaches a preference for *using the above-mentioned OID format for complex, re-usable resources that are potentially resident in the device, or can be captured by the device.* It follows that *less complex resources* would not use this OID format, and therefore, would be *cached.*

Use of this OID format provides a mechanism by which a user can control whether a resource is to be *captured* or *cached*.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- **MARTIN [US Patent 5,819,015]** provides various examples of user interfaces for managing printer resources;

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter L. Cheng whose telephone number is 571-270-3007. The examiner can normally be reached on MONDAY, THURSDAY, and alternating TUESDAYS and WEDNESDAYS from 10:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/plc/
September 14, 2010

/Mark K Zimmerman/
Supervisory Patent Examiner, Art Unit 2625